TDMS No. 99027 - 03
Test Type: CHRONIC
Route: DOSED FEED

Species/Strain: RATS/F 344

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

CHROMIUM PICOLINATE MONOHYDRATE

**CAS Number:** 27882-76-4

F1\_R2

**C Number:** C99027

**Lock Date:** 05/03/2005

Cage Range: ALL

Date Range: ALL

**Reasons For Removal:** ALL

Removal Date Range: ALL

Treatment Groups: Include ALL

**TDMSE Version:** 1.7.0

**Date Report Reqsted:** 03/16/2007 **Time Report Reqsted:** 08:39:18 **First Dose M/F:** 08/12/02 / 08/12/02

Lab: SRI

## CHROMIUM PICOLINATE MONOHYDRATE

**CAS Number:** 27882-76-4

**Date Report Reqsted:** 03/16/2007 **Time Report Reqsted:** 08:39:18 **First Dose M/F:** 08/12/02 / 08/12/02

Lab: SRI

FISCHER 344 RATS MALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Disposition Summary					
Animals Initially in Study	50	50	50	50	
Early Deaths					
Moribund Sacrifice	11	9	12	19	
Natural Death	2	5	3	3	
Survivors			3		
Natural Death Terminal Sacrifice	37	36	2 33	28	
Animals Examined Microscopically	50	50	50	50	
Animals Examined Microscopically	30	30	30	30	
ALIMENTARY SYSTEM					
Intestine Large, Cecum	(48)	(48)	(48)	(50)	
Intestine Large, Colon	(48)	(46)	(46)	(48)	
Ulcer				1 (2%)	
Intestine Large, Rectum	(48)	(48)	(48)	(50)	
Hemorrhage		1 (2%)			
Intestine Small, Duodenum	(49)	(48)	(48)	(50)	
Intestine Small, Ileum	(49)	(45)	(47)	(45)	
Liver	(50)	(50)	(50)	(50)	
Angiectasis	07 (540()	00 (040/)	2 (4%)	07 (540()	
Basophilic Focus	27 (54%)	32 (64%)	29 (58%)	27 (54%)	
Clear Cell Focus Degeneration, Cystic	32 (64%) 1 (2%)	32 (64%) 1 (2%)	27 (54%)	26 (52%) 1 (2%)	
Eosinophilic Focus	1 (2%)	3 (6%)	E (100/)	1 (2%) 1 (2%)	
Eosinophilic Focus  Eosinophilic Focus, Multiple	1 (2/0)	3 (0 %)	5 (10%)	1 (2%)	
Hemorrhage	2 (4%)	3 (6%)	3 (6%)	1 (2%)	
Hepatodiaphragmatic Nodule	7 (14%)	8 (16%)	6 (12%)	3 (6%)	
Inflammation, Chronic	1 (2%)	3 (1070)	0 (1270)	1 (2%)	
Mixed Cell Focus	4 (8%)			3 (6%)	
Necrosis, Focal	5 (10%)	1 (2%)	4 (8%)	1 (2%)	
Vacuolization Cytoplasmic	3 (1373)	1 (2%)	. (373)	. (=75)	
Bile Duct, Hyperplasia	23 (46%)	11 (22%)	14 (28%)	9 (18%)	
Centrilobular, Bile Stasis	·/	,	·/	1 (2%)	
Centrilobular, Necrosis	4 (8%)	3 (6%)	2 (4%)	3 (6%)	
Centrilobular, Hepatocyte, Atrophy	, ,	` '	, ,	1 (2%)	
Hepatocyte, Vacuolization Cytoplasmic	8 (16%)	4 (8%)	9 (18%)	6 (Ì2%)	
Portal Vein, Thrombosis, Focal	• •	1 (2%)		·	

a - Number of animals examined microscopically at site and number of animals with lesion

**TDMS No.** 99027 - 03

Test Type: CHRONIC

Route: DOSED FEED

## CHROMIUM PICOLINATE MONOHYDRATE

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Lab: SRI

FISCHER 344 RATS MALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Serosa, Fibrosis	1 (2%)				
Serosa, Pigmentation	1 (2%)				
Mesentery	(15)	(10)	(8)	(9)	
Accessory Spleen	3 (20%)	( - /	1 (13%)	(-)	
Hemorrhage	1 (7%)		( /		
Fat, Necrosis	10 (67%)	7 (70%)	5 (63%)	6 (67%)	
Oral Mucosa	(1)	(0)	(1)	(0)	
Hyperplasia	1 (100%)	(-)	( )	(-)	
Pancreas	(49)	(50)	(50)	(50)	
Atrophy	37 (76%)	40 (80%)	35 (70%)	27 (54%)	
Acinus, Hyperplasia, Focal	6 (12%)	- ()	2 (4%)	2 (4%)	
Salivary Glands	(50)	(50)	(50)	(50)	
Atrophy	5 (10%)	6 (12%)	7 (14%)	5 (10%)	
Necrosis	- ()	1 (2%)	( ( ) )	· ( · · · · · · )	
Stomach, Forestomach	(49)	(49)	(50)	(50)	
Edema	1 (2%)	2 (4%)	4 (8%)	1 (2%)	
Erosion	1 (2%)	_ ( . , , ,	1 (2%)	1 (2%)	
Hemorrhage	(=75)		1 (2%)	(=73)	
Hyperkeratosis	1 (2%)		(=,5)	1 (2%)	
Inflammation, Acute	(=75)	1 (2%)		(=73)	
Inflammation, Chronic Active		1 (2%)	1 (2%)		
Ulcer	2 (4%)	. (=73)	3 (6%)	3 (6%)	
Vacuolization Cytoplasmic	= ( : / = /	1 (2%)	G (G75)	3 (3,0)	
Epithelium, Hyperplasia	3 (6%)	5 (10%)	4 (8%)	3 (6%)	
Stomach, Glandular	(49)	(49)	(50)	(50)	
Edema	(10)	(10)	1 (2%)	(66)	
Erosion	1 (2%)	1 (2%)	1 (2%)	3 (6%)	
Hyperplasia, Focal	. (= /*)	. (=73)	2 (4%)	3 (3,0)	
Ulcer	3 (6%)	1 (2%)	2 (4%)	1 (2%)	
Tongue	(1)	(2)	(0)	(1)	
Epithelium, Hyperplasia	(1)	2 (100%)	(0)	1 (100%)	
ARDIOVASCULAR SYSTEM		2 (10070)		(10070)	
Heart	(50)	(50)	(50)	(50)	
Cardiomyopathy	48 (96%)	47 (94%)	47 (94%)	45 (90%)	
Fibrosis	<del>40</del> (0070)	77 (3770)	77 (0770)	1 (2%)	
Thrombosis	3 (6%)	2 (4%)	4 (8%)	2 (4%)	
Artery, Mineralization	3 (0/0)	1 (2%)	<del>-</del> (0 /0)	۷ (٦/٥)	
Artery, Willieralization		I (∠%)			

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CHROMIUM PICOLINATE MONOHYDRATE

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Lab: SRI

FISCHER 344 RATS MALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
ENDOCRINE SYSTEM					
Adrenal Cortex	(50)	(49)	(50)	(50)	
Accessory Adrenal Cortical Nodule	5 (10%)	22 (45%)	23 (46%)	15 (30%)	
Angiectasis	1 (2%)	,	,	,	
Degeneration, Fatty	12 (24%)	7 (14%)	8 (16%)	8 (16%)	
Hematopoietic Cell Proliferation	,	,	,	1 (2%)	
Hemorrhage	1 (2%)	2 (4%)		( )	
Hyperplasia, Focal	18 (36%)	22 (45%)	19 (38%)	21 (42%)	
Hypertrophy, Focal	12 (2273)	1 (2%)	(==,=,	_	
Necrosis	1 (2%)	(= / 5/		1 (2%)	
Capsule, Hyperplasia	( ( , , , ,		1 (2%)	(= / - /	
Adrenal Medulla	(50)	(49)	(50)	(50)	
Angiectasis	1 (2%)	(13)	(00)	(55)	
Hyperplasia	10 (20%)	2 (4%)	2 (4%)	4 (8%)	
Islets, Pancreatic	(50)	(50)	(50)	(50)	
Hyperplasia	6 (12%)	4 (8%)	3 (6%)	2 (4%)	
Parathyroid Gland	(45)	(48)	(49)	(47)	
Pituitary Gland	(50)	(49)	(50)	(50)	
Cyst	(00)	1 (2%)	(00)	(55)	
Pars Distalis, Angiectasis		. (= /3)		1 (2%)	
Pars Distalis, Cyst	2 (4%)	1 (2%)	2 (4%)	3 (6%)	
Pars Distalis, Hemorrhage	= ( : / = )	. (= /3)	= ( . , 5)	1 (2%)	
Pars Distalis, Hyperplasia, Focal	15 (30%)	13 (27%)	17 (34%)	18 (36%)	
Pars Distalis, Necrosis	10 (0070)	(=. /3)	(6.70)	1 (2%)	
Pars Intermedia, Cyst				1 (2%)	
Rathke's Cleft, Hemorrhage		1 (2%)		. (= /3)	
Thyroid Gland	(50)	(50)	(50)	(50)	
Ultimobranchial Cyst	1 (2%)	(55)	(00)	(55)	
C-cell, Hyperplasia	10 (20%)	5 (10%)	13 (26%)	6 (12%)	
Follicular Cell, Hyperplasia	15 (=575)	1 (2%)	(==,-=,	2 (1-73)	
GENERAL BODY SYSTEM					
Tissue NOS	(2)	(1)	(2)	(1)	
Hemorrhage	1 (50%)				
Necrosis, Focal			1 (50%)		

**GENITAL SYSTEM** 

TDMS No. 99027 - 03 Test Type: CHRONIC

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a - Number of animals examined microscopically at site and number of animals with lesion

# CHROMIUM PICOLINATE MONOHYDRATE CAS Number: 27882-76-4

Route: DOSED FEED CAS Number: 27882-Species/Strain: RATS/F 344

TDMS No. 99027 - 03 Test Type: CHRONIC **Date Report Reqsted:** 03/16/2007 **Time Report Reqsted:** 08:39:18 **First Dose M/F:** 08/12/02 / 08/12/02

Lab: SRI

FISCHER 344 RATS MALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Epididymis	(49)	(50)	(50)	(50)	
Granuloma Sperm	1 (2%)		1 (2%)		
Preputial Gland	(50)	(50)	(50)	(50)	
Atrophy				1 (2%)	
Cyst	4 (8%)	3 (6%)	3 (6%)	2 (4%)	
Hyperplasia	3 (6%)	1 (2%)		2 (4%)	
Inflammation, Chronic	26 (52%)	35 (70%)	30 (60%)	25 (50%)	
Prostate	(50)	(50)	(50)	(50)	
Cyst		1 (2%)	1 (2%)	1 (2%)	
Inflammation, Chronic	8 (16%)	12 (24%)	10 (20%)	11 (22%)	
Epithelium, Hyperplasia	4 (8%)	9 (18%)	11 (22%)	4 (8%)	
Seminal Vesicle	(50)	(50)	(50)	(50)	
Inflammation, Chronic	1 (2%)	,	. ,	` ,	
Bilateral, Cyst	,		1 (2%)		
Epithelium, Hyperplasia			1 (2%)		
Testes	(50)	(50)	(50)	(50)	
Mineralization	1 (2%)	()	()	()	
Thrombosis, Focal	1 (2%)				
Germinal Epithelium, Atrophy	11 (22%)	9 (18%)	12 (24%)	11 (22%)	
Interstitial Cell, Hyperplasia	11 (2270)	3 (6%)	4 (8%)	5 (10%)	
		. ,	. ,	. ,	
HEMATOPOIETIC SYSTEM					
Bone Marrow	(50)	(50)	(50)	(50)	
Depletion Cellular		1 (2%)			
Myelofibrosis	3 (6%)	1 (2%)		3 (6%)	
Lymph Node	(15)	(15)	(13)	(17)	
Hyperplasia, Lymphoid	, ,	1 (7%)	. ,	, ,	
Mediastinal, Ectasia		2 (13%)	1 (8%)	1 (6%)	
Mediastinal, Hemorrhage	2 (13%)	2 (13%)	1 (8%)	1 (6%)	
Mediastinal, Hyperplasia, Lymphoid	1 (7%)	, ,	1 (8%)	1 (6%)	
Mediastinal, Pigmentation	1 (7%)		,	,	
Pancreatic, Ectasia	1 (7%)	1 (7%)	2 (15%)	4 (24%)	
Pancreatic, Hemorrhage	2 (13%)	. (-,-)	1 (8%)	1 (6%)	
Pancreatic, Hyperplasia, Lymphoid	1 (7%)		( ( ) )	1 (6%)	
Pancreatic, Infiltration Cellular, Histiocyte	. (. /-)			1 (6%)	
Renal, Ectasia		1 (7%)		. (370)	
Renal, Hyperplasia, Lymphoid		1 (7%)			
Lymph Node, Mandibular	(2)	(0)	(1)	(2)	
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)	
Lymph 140de, Mesenteno	(30)	(30)	(50)	(30)	

a - Number of animals examined microscopically at site and number of animals with lesion

CHROMIUM PICOLINATE MONOHYDRATE

**CAS Number:** 27882-76-4

Date Report Reqsted: 03/16/2007 Time Report Reqsted: 08:39:18 First Dose M/F: 08/12/02 / 08/12/02

Lab: SRI

FISCHER 344 RATS MALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Atrophy	1 (2%)				
Ectasia	2 (4%)		2 (4%)	5 (10%)	
Hemorrhage	1 (2%)	1 (2%)	,	,	
Hyperplasia, Reticulum Cell	1 (2%)	,	1 (2%)	1 (2%)	
Spleen	(50)	(50)	(50)	(50)	
Fibrosis	, ,	, ,	1 (2%)	1 (2%)	
Hematopoietic Cell Proliferation	3 (6%)	1 (2%)	2 (4%)	4 (8%)	
Hemorrhage	1 (2%)				
Metaplasia, Osseous			1 (2%)		
Necrosis	2 (4%)				
Pigmentation	26 (52%)	29 (58%)	28 (56%)	33 (66%)	
Thrombosis				1 (2%)	
Lymphoid Follicle, Hyperplasia	20 (40%)	9 (18%)	8 (16%)	14 (28%)	
Thymus	(48)	(45)	(48)	(48)	
Atrophy	37 (77%)	40 (89%)	36 (75%)	35 (73%)	
Hemorrhage		1 (2%)			
TEGUMENTARY SYSTEM					
Mammary Gland Cyst Hyperplasia Skin Cyst Epithelial Inclusion Hyperkeratosis Inflammation, Chronic Ulcer Epidermis, Hyperplasia Pinna, Ulcer	(49) 3 (6%) 8 (16%) (50) 2 (4%)	(50) 1 (2%) 13 (26%) (50) 3 (6%)	(50) 3 (6%) 20 (40%) (50) 1 (2%) 3 (6%) 1 (2%) 1 (2%) 3 (6%)	(49) 6 (12%) 9 (18%) (50) 4 (8%) 1 (2%)  1 (2%)	
Mammary Gland Cyst Hyperplasia Skin Cyst Epithelial Inclusion Hyperkeratosis Inflammation, Chronic Ulcer Epidermis, Hyperplasia	3 (6%) 8 (16%) (50)	1 (2%) 13 (26%) (50) 3 (6%)	3 (6%) 20 (40%) (50) 1 (2%) 3 (6%) 1 (2%) 1 (2%)	6 (12%) 9 (18%) (50) 4 (8%) 1 (2%)	
Mammary Gland Cyst Hyperplasia Skin Cyst Epithelial Inclusion Hyperkeratosis Inflammation, Chronic Ulcer Epidermis, Hyperplasia Pinna, Ulcer  JSCULOSKELETAL SYSTEM Bone	3 (6%) 8 (16%) (50) 2 (4%)	1 (2%) 13 (26%) (50) 3 (6%)	3 (6%) 20 (40%) (50) 1 (2%) 3 (6%) 1 (2%) 1 (2%) 3 (6%)	6 (12%) 9 (18%) (50) 4 (8%) 1 (2%)	
Mammary Gland Cyst Hyperplasia Skin Cyst Epithelial Inclusion Hyperkeratosis Inflammation, Chronic Ulcer Epidermis, Hyperplasia Pinna, Ulcer  JSCULOSKELETAL SYSTEM  Bone Osteopetrosis	3 (6%) 8 (16%) (50) 2 (4%) (50) 2 (4%)	1 (2%) 13 (26%) (50) 3 (6%) 3 (6%)	3 (6%) 20 (40%) (50) 1 (2%) 3 (6%) 1 (2%) 1 (2%) 3 (6%)	6 (12%) 9 (18%) (50) 4 (8%) 1 (2%) 1 (2%) 1 (2%)	
Mammary Gland Cyst Hyperplasia Skin Cyst Epithelial Inclusion Hyperkeratosis Inflammation, Chronic Ulcer Epidermis, Hyperplasia Pinna, Ulcer  JSCULOSKELETAL SYSTEM  Bone Osteopetrosis Skeletal Muscle	3 (6%) 8 (16%) (50) 2 (4%) (50) 2 (4%) (2)	1 (2%) 13 (26%) (50) 3 (6%)	3 (6%) 20 (40%) (50) 1 (2%) 3 (6%) 1 (2%) 1 (2%) 3 (6%)	6 (12%) 9 (18%) (50) 4 (8%) 1 (2%) 1 (2%)	
Mammary Gland Cyst Hyperplasia Skin Cyst Epithelial Inclusion Hyperkeratosis Inflammation, Chronic Ulcer Epidermis, Hyperplasia Pinna, Ulcer  JSCULOSKELETAL SYSTEM Bone Osteopetrosis	3 (6%) 8 (16%) (50) 2 (4%) (50) 2 (4%)	1 (2%) 13 (26%) (50) 3 (6%) 3 (6%)	3 (6%) 20 (40%) (50) 1 (2%) 3 (6%) 1 (2%) 1 (2%) 3 (6%)	6 (12%) 9 (18%) (50) 4 (8%) 1 (2%) 1 (2%) 1 (2%)	

**NERVOUS SYSTEM** 

**TDMS No.** 99027 - 03 Test Type: CHRONIC

Route: DOSED FEED

a - Number of animals examined microscopically at site and number of animals with lesion

CHROMIUM PICOLINATE MONOHYDRATE

**CAS Number:** 27882-76-4

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Lab: SRI

FISCHER 344 RATS MALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Brain	(50)	(50)	(50)	(50)	
Compression	5 (10%)	4 (8%)	4 (8%)	5 (10%)	
Edema, Focal Hemorrhage	6 (12%)	8 (16%)	5 (10%)	1 (2%) 1 (2%)	
Metaplasia, Lipocyte, Focal				1 (2%)	
Necrosis Thrombosis	1 (2%)	2 (4%) 1 (2%)	2 (4%)	1 (2%)	
RESPIRATORY SYSTEM					
Lung	(50)	(50)	(50)	(50)	
Fibrosis				1 (2%)	
Hemorrhage	2 (4%)	3 (6%)	3 (6%)		
Infiltration Cellular, Eosinophil		1 (2%)			
Infiltration Cellular, Histiocyte	43 (86%)	47 (94%)	41 (82%)	43 (86%)	
Inflammation, Chronic	- ((()	1 (2%)	3 (6%)	2 (4%)	
Metaplasia, Osseous	5 (10%)	4 (8%)	3 (6%)	2 (4%)	
Metaplasia, Squamous, Focal	(- ()	1 (2%)			
Alveolar Epithelium, Hyperplasia Alveolar Epithelium, Metaplasia, Squamous	13 (26%)	11 (22%)	15 (30%)	19 (38%) 1 (2%)	
Nose	(50)	(50)	(50)	(50)	
Foreign Body	12 (24%)	9 (18%)	6 (12%)	(50) 3 (6%)	
Inflammation, Chronic	11 (22%)	16 (32%)	11 (22%)	7 (14%)	
Thrombosis	11 (22 /6)	10 (32 %)	1 (2%)	7 (1470)	
Goblet Cell, Hyperplasia	1 (2%)	1 (2%)	1 (278)		
Respiratory Epithelium, Hyperplasia	1 (270)	1 (270)	1 (2%)		
Respiratory Epithelium, Metaplasia,		2 (4%)	1 (278)		
Squamous		2 (470)			
Trachea	(50)	(50)	(50)	(50)	
SPECIAL SENSES SYSTEM					
Ear	(1)	(0)	(0)	(0)	
Hemorrhage	1 (100%)	(5)	(0)	(=)	
External Ear, Inflammation, Acute	1 (100%)				
Eye	(50)	(50)	(50)	(50)	
Cataract	1 (2%)	3 (6%)	3 (6%)	2 (4%)	
Degeneration	. (-,-,	- (-,-)	1 (2%)	_ ( · · · · )	
Pigmentation, Hemosiderin, Focal			- (=,-,	1 (2%)	
Retinal Detachment, Focal				1 (2%)	

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CHROMIUM PICOLINATE MONOHYDRATE

**CAS Number:** 27882-76-4

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Lab: SRI

FISCHER 344 RATS MALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Retina, Degeneration	4 (20/)	1 (2%)			
Retina, Necrosis, Focal	1 (2%)	1 (2/8)		1 (2%)	
Harderian Gland	(50)	(50)	(50)	(50)	
Hyperplasia, Focal	(00)	1 (2%)	(55)	(00)	
Zymbal's Gland	(0)	(1)	(0)	(0)	
URINARY SYSTEM					
Kidney	(50)	(49)	(50)	(50)	
Cyst	1 (2%)	,	,	1 (2%)	
Infarct			2 (4%)	1 (2%)	
Inflammation, Suppurative	1 (2%)				
Nephropathy	50 (100%)	47 (96%)	47 (94%)	48 (96%)	
Thrombosis			1 (2%)		
Pelvis, Dilatation		2 (4%)			
Renal Tubule, Hyperplasia	3 (6%)		5 (10%)	3 (6%)	
Renal Tubule, Necrosis		1 (2%)			
Transitional Epithelium, Hyperplasia	1 (2%)	3 (6%)	1 (2%)	1 (2%)	
Urethra	(0)	(1)	(1)	(0)	
Angiectasis		1 (100%)			
Bulbourethral Gland, Cyst			1 (100%)		
Urinary Bladder	(50)	(50)	(50)	(50)	
Edema	1 (2%)				
Hemorrhage	1 (2%)	1 (2%)			
Inflammation, Chronic	1 (2%)		1 (2%)	1 (2%)	

\*\*\* END OF MALE \*\*\*

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CHROMIUM PICOLINATE MONOHYDRATE

**CAS Number:** 27882-76-4

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Lab: SRI

FISCHER 344 RATS FEMALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Disposition Summary					
Animals Initially in Study Early Deaths	50	50	50	50	
Moribund Sacrifice	11	13	11	8	
Natural Death	3	2	3	2	
Survivors					
Natural Death	1			1	
Terminal Sacrifice	35	35	36	39	
Animals Examined Microscopically	50	50	50	50	
LIMENTARY SYSTEM					
Esophagus	(50)	(50)	(50)	(50)	
Infiltration Cellular, Lymphocyte	(33)	(55)	(00)	1 (2%)	
Intestine Large, Colon	(47)	(48)	(50)	(48)	
Intestine Small, Ileum	(46)	(49)	(50)	(47)	
Necrosis, Lymphoid	( - /	( - /	1 (2%)	,	
Liver	(50)	(50)	(50)	(50)	
Angiectasis	()	()	( /	1 (2%)	
Basophilic Focus	41 (82%)	44 (88%)	46 (92%)	44 (88%)	
Clear Cell Focus	27 (54%)	23 (46%)	22 (44%)	21 (42%)	
Degeneration, Cystic	,	1 (2%)	,	,	
Eosinophilic Focus		1 (2%)		1 (2%)	
Eosinophilic Focus, Multiple		, ,	1 (2%)	,	
Hemorrhage	1 (2%)	1 (2%)	1 (2%)		
Hepatodiaphragmatic Nodule	8 (16%)	8 (Ì6%́)	8 (16%)	8 (16%)	
Hypertrophy, Focal	1 (2%)				
Infiltration Cellular, Lymphocyte				1 (2%)	
Inflammation, Chronic	3 (6%)	1 (2%)	4 (8%)	2 (4%)	
Mixed Cell Focus		1 (2%)	4 (8%)	3 (6%)	
Necrosis, Focal	2 (4%)	·	2 (4%)	3 (6%)	
Thrombosis	2 (4%)	1 (2%)		1 (2%)	
Bile Duct, Hyperplasia	3 (6%)	6 (12%)	5 (10%)	2 (4%)	
Centrilobular, Necrosis	4 (8%)	1 (2%)	1 (2%)	1 (2%)	
Hepatocyte, Vacuolization Cytoplasmic	6 (12%)	3 (6%)	6 (12%)	5 (10%)	
Mesentery	(11)	(6)	(7)	(13)	
Accessory Spleen			1 (14%)	2 (15%)	
Fibrosis			1 (14%)		

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CHROMIUM PICOLINATE MONOHYDRATE

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Lab: SRI

FISCHER 344 RATS FEMALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Fat, Necrosis	11 (100%)	6 (100%)	5 (71%)	12 (92%)	
Oral Mucosa	(0)	(0)	(1)	(0)	
Pancreas	(49)	(50)	(50)	(50)	
Atrophy	21 (43%)	27 (54%)	27 (54%)	26 (52%)	
Metaplasia, Hepatocyte		1 (2%)		. (==()	
Necrosis	. (==()			1 (2%)	
Acinus, Hyperplasia, Focal	1 (2%)	<b>1</b> —->	1 (2%)	1 (2%)	
Salivary Glands	(50)	(50)	(50)	(50)	
Atrophy	11 (22%)	19 (38%)	19 (38%)	16 (32%)	
Cyst		1 (2%)			
Vacuolization Cytoplasmic			1 (2%)		
Stomach, Forestomach	(49)	(50)	(50)	(50)	
Edema	1 (2%)	1 (2%)		1 (2%)	
Erosion				1 (2%)	
Inflammation, Acute	1 (2%)				
Inflammation, Chronic Active	1 (2%)				
Ulcer	1 (2%)	2 (4%)	1 (2%)	2 (4%)	
Epithelium, Hyperplasia	2 (4%)	1 (2%)	1 (2%)	1 (2%)	
Stomach, Glandular	(49)	(50)	(50)	(50)	
Edema		3 (6%)			
Erosion	2 (4%)	3 (6%)	1 (2%)	2 (4%)	
Inflammation, Acute		1 (2%)			
Ulcer	1 (2%)	1 (2%)			
Tongue	(1)	(0)	(3)	(2)	
Hyperkeratosis			1 (33%)		
Epithelium, Hyperplasia	1 (100%)		2 (67%)	2 (100%)	
CARDIOVASCULAR SYSTEM					
Heart	(50)	(50)	(50)	(50)	
Cardiomyopathy	44 (88%)	44 (88%)	47 (94%)	46 (92%)	
Inflammation, Chronic	44 (00%)	44 (00%)	1 (2%)	40 (92%)	
Thrombosis	3 (6%)		1 (2%)		
THIOHIDOSIS	3 (6%)				
ENDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(50)	(50)	
Accessory Adrenal Cortical Nodule	4 (8%)	10 (20%)	9 (18%)	9 (18%)	
Angiectasis	1 (2%)	1 (2%)	2 (4%)	3 (1070)	
Degeneration, Cystic	1 (2/0)	3 (6%)	2 (470)		
Degeneration, Oystic		3 (0 /0)			

TDMS No. 99027 - 03 Test Type: CHRONIC

Route: DOSED FEED

a - Number of animals examined microscopically at site and number of animals with lesion

CHROMIUM PICOLINATE MONOHYDRATE

**CAS Number:** 27882-76-4

**Date Report Reqsted:** 03/16/2007 **Time Report Reqsted:** 08:39:18 **First Dose M/F:** 08/12/02 / 08/12/02

Lab: SRI

FISCHER 344 RATS FEMALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Degeneration, Fatty	6 (12%)	5 (10%)	2 (4%)	3 (6%)	
Hematopoietic Cell Proliferation			1 (2%)		
Hemorrhage	1 (2%)	3 (6%)	1 (2%)		
Hyperplasia, Focal	12 (24%)	20 (40%)	26 (52%)	24 (48%)	
Hypertrophy	2 (4%)	5 (10%)	3 (6%)	7 (14%)	
Hypertrophy, Focal			1 (2%)		
Necrosis	2 (4%)		1 (2%)	1 (2%)	
Vacuolization Cytoplasmic	1 (2%)	2 (4%)	` ,	1 (2%)	
Adrenal Medulla	(50)	(49)	(50)	(50)	
Hyperplasia	,	4 (8%)	,	1 (2%)	
Islets, Pancreatic	(49)	(50)	(50)	(50)	
Angiectasis, Focal	( /	1 (2%)	()	()	
Hyperplasia	1 (2%)	2 (4%)	3 (6%)	1 (2%)	
Parathyroid Gland	(48)	(49)	(48)	(43)	
Pituitary Gland	(49)	(50)	(50)	(50)	
Hemorrhage	(10)	(00)	1 (2%)	1 (2%)	
Pars Distalis, Angiectasis	1 (2%)	1 (2%)	3 (6%)	1 (2%)	
Pars Distalis, Cyst	11 (22%)	8 (16%)	9 (18%)	11 (22%)	
Pars Distalis, Hyperplasia, Focal	15 (31%)	7 (14%)	9 (18%)	12 (24%)	
Pars Distalis, Infiltration Cellular,	13 (31 %)	1 (2%)	9 (1076)	12 (2470)	
Mononuclear Cell		1 (270)			
Pars Distalis, Pigmentation		1 (2%)			
	1 (20/)	1 (276)	1 (20/)		
Pars Intermedia, Angiectasis	1 (2%)		1 (2%)	4 (20/)	
Pars Intermedia, Cyst	1 (2%)		2 (4%)	1 (2%)	
Rathke's Cleft, Hemorrhage	1 (2%)	(50)	1 (2%)	(50)	
Thyroid Gland	(49)	(50)	(50)	(50)	
Ultimobranchial Cyst	1 (2%)	5 (10%)	0.4 (400()	04 (400()	
C-cell, Hyperplasia	25 (51%)	29 (58%)	24 (48%)	21 (42%)	

#### GENERAL BODY SYSTEM

None

GEINI	IAL	51	(5)	

TDMS No. 99027 - 03 Test Type: CHRONIC

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Clitoral Gland	(50)	(50)	(50)	(50)
Cyst	2 (4%)	5 (10%)	2 (4%)	5 (10%)
Hyperplasia	8 (16%)	10 (20%)	11 (22%)	4 (8%)
Inflammation, Chronic	4 (8%)	5 (10%)	3 (6%)	3 (6%)
Ovary	(50)	(50)	(50)	(50)

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## CHROMIUM PICOLINATE MONOHYDRATE

**CAS Number:** 27882-76-4

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Lab: SRI

FISCHER 344 RATS FEMALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Cyst Uterus Angiectasis	8 (16%) (50)	5 (10%) (50)	6 (12%) (50)	7 (14%) (50) 1 (2%)	
Hemorrhage Hyperplasia, Cystic Inflammation, Suppurative Inflammation, Chronic	1 (2%) 17 (34%) 1 (2%)	30 (60%) 1 (2%) 1 (2%)	24 (48%) 1 (2%)	19 (38%) 1 (2%)	
Cervix, Hemorrhage Vagina Inflammation	1 (2%) (5)	(6)	(1)	(3) 1 (33%)	
HEMATOPOIETIC SYSTEM					
Bone Marrow Infiltration Cellular, Histiocyte	(50)	(50) 1 (2%)	(50)	(50)	
Myelofibrosis Lymph Node Deep Cervical, Ectasia Deep Cervical, Hemorrhage	2 (4%) (9) 1 (11%) 1 (11%)	3 (6%) (10)	1 (2%) (11)	(7)	
Deep Cervical, Hyperplasia, Lymphoid Mediastinal, Ectasia Mediastinal, Hemorrhage Mediastinal, Hyperplasia	1 (11%) 3 (33%) 2 (22%)	2 (20%) 2 (20%)	1 (9%) 3 (27%)	1 (14%) 1 (14%)	
Mediastinal, Hyperplasia, Lymphoid Mediastinal, Pigmentation Mediastinal, Pigmentation, Hemosiderin	1 (11%) 2 (22%)	2 (20%)	2 (18%)	1 (14%)	
Pancreatic, Ectasia Pancreatic, Hemorrhage Pancreatic, Hyperplasia, Lymphoid Pancreatic, Pigmentation		1 (10%)	1 (9%) 1 (9%) 1 (9%)	1 (14%) 1 (14%) 1 (14%)	
Lymph Node, Mandibular Ectasia Hyperplasia, Lymphoid	(1) 1 (100%) 1 (100%)	(3) 1 (33%)	(1) 1 (100%)	(0)	
Lymph Node, Mesenteric Ectasia	(50)	(50)	(50) 1 (2%)	(50)	
Hemorrhage Hyperplasia, Reticulum Cell Pigmentation, Hemosiderin	1 (2%) 1 (2%)	1 (2%)	1 (2%)		
Spleen Fibrosis	(50)	(50) 2 (4%)	(50) 1 (2%)	(49)	

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CHROMIUM PICOLINATE MONOHYDRATE

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Lab: SRI

FISCHER 344 RATS FEMALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Hematopoietic Cell Proliferation Hemorrhage Hyperplasia, Lymphoid, Focal Infarct	4 (8%)	5 (10%)	1 (2%) 1 (2%) 1 (2%)	2 (4%) 1 (2%) 1 (2%)	
Pigmentation Thrombosis	40 (80%)	43 (86%)	44 (88%)	1 (2%) 44 (90%) 1 (2%)	
Lymphoid Follicle, Hyperplasia Thymus Atrophy Cyst	7 (14%) (46) 37 (80%)	5 (10%) (48) 37 (77%)	7 (14%) (49) 45 (92%) 1 (2%)	6 (12%) (48) 45 (94%)	
NTEGUMENTARY SYSTEM					
Mammary Gland Cyst Hyperplasia Skin Cyst Epithelial Inclusion Fibrosis Hyperkeratosis Inflammation, Chronic Ulcer Epidermis, Hyperplasia Sebaceous Gland, Hyperplasia	(50) 8 (16%) 37 (74%) (50)	(49) 2 (4%) 38 (78%) (50) 1 (2%) 2 (4%)	(50) 33 (66%) (50) 3 (6%) 1 (2%) 2 (4%) 1 (2%)	(50) 1 (2%) 42 (84%) (50) 2 (4%) 2 (4%) 1 (2%) 1 (2%) 1 (2%)	
MUSCULOSKELETAL SYSTEM					
Bone Osteopetrosis	(50)	(50) 1 (2%)	(50)	(50)	
NERVOUS SYSTEM					
Brain Compression Gliosis Hemorrhage Spinal Cord	(50) 9 (18%) 1 (2%) 2 (4%) (2)	(50) 10 (20%) 1 (2%) (4)	(50) 11 (22%) 2 (4%) (3)	(50) 13 (26%) 3 (6%) (1)	

TDMS No. 99027 - 03 Test Type: CHRONIC

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CHROMIUM PICOLINATE MONOHYDRATE

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Lab: SRI

FISCHER 344 RATS FEMALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
ESPIRATORY SYSTEM					
Lung	(50)	(50)	(50)	(50)	
Congestion				1 (2%)	
Foreign Body	- (()		. (55.1)	2 (4%)	
Hemorrhage	3 (6%)	1 (2%)	1 (2%)	4 (8%)	
Hyperplasia, Lymphoid	10 (000()	47 (0.40()	47 (0.40()	1 (2%)	
Infiltration Cellular, Histiocyte	49 (98%)	47 (94%)	47 (94%)	46 (92%)	
Inflammation, Chronic	2 (4%)	4 (8%)	3 (6%)	8 (16%)	
Metaplasia, Osseous	2 (4%)	2 (4%)	1 (2%)		
Metaplasia, Squamous	4 (00()	1 (2%)			
Necrosis Thrombosis	1 (2%)			4 (20/)	
	1 (2%)	E (100/)	6 (430/)	1 (2%)	
Alveolar Epithelium, Hyperplasia	6 (12%)	5 (10%)	6 (12%)	4 (8%)	
Alveolar Epithelium, Metaplasia, Squamous Serosa, Hyperplasia	1 (2%)	1 (2%)			
Nose	(50)	(50)	(50)	(50)	
Foreign Body	(30)	1 (2%)	(30)	1 (2%)	
Inflammation, Chronic	5 (10%)	4 (8%)	3 (6%)	3 (6%)	
Nasolacrimal Duct, Cyst	3 (1070)	4 (070)	3 (070)	1 (2%)	
Turbinate, Dysplasia			1 (2%)	(270)	
PECIAL SENSES SYSTEM					
Eye	(47)	(49)	(50)	(50)	
Cataract	2 (4%)	2 (4%)	1 (2%)	2 (4%)	
Edema	1 (2%)				
Hemorrhage		1 (2%)			
Inflammation, Chronic				1 (2%)	
Retinal Detachment	1 (2%)				
Bilateral, Retinal Detachment		1 (2%)			
Cornea, Hyperplasia				1 (2%)	
Retina, Degeneration	1 (2%)	2 (4%)	1 (2%)	1 (2%)	
Harderian Gland	(50)	(50)	(50)	(50)	
Hyperplasia, Focal Zymbal's Gland	(1)	(0)	1 (2%) (0)	(0)	

**URINARY SYSTEM** 

TDMS No. 99027 - 03 Test Type: CHRONIC

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CHROMIUM PICOLINATE MONOHYDRATE

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Lab: SRI

FISCHER 344 RATS FEMALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Kidney	(47)	(50)	(50)	(50)	
Cyst	( )	1 (2%)	()	()	
Infarct, Chronic		,	1 (2%)		
Infiltration Cellular, Lymphocyte				1 (2%)	
Nephropathy	46 (98%)	47 (94%)	48 (96%)	50 (100%)	
Thrombosis	1 (2%)	1 (2%)			
Papilla, Inflammation, Suppurative			1 (2%)		
Renal Tubule, Hyperplasia	1 (2%)		1 (2%)	2 (4%)	
Transitional Epithelium, Hyperplasia			1 (2%)		
Transitional Epithelium, Mineralization, Focal		1 (2%)			
Urinary Bladder	(50)	(50)	(49)	(50)	
Edema			1 (2%)	1 (2%)	
Hyperplasia, Lymphoid		1 (2%)			

\*\*\* END OF REPORT \*\*\*

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